

# PHENIX WEEKLY PLANNING

8/7/2008

Don Lynch

# Shutdown '08 Schedule



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## Design & Safety Review Action Items:

Mu Trigger

Done

RPC Prototype Installation

Design in progress ready for review by 8/15

New Beampipe

Waiting for Funding recommence efforts continue 10/1

CM Crane

Vendor response rec'd, address remaining concerns and resubmit for final quote by 8/31

Sta. 1 and MMN Scaffolding

Done

## RPC Factory:

Prototype C tests

Complete

Prototype D Tests

gaps & module frames received on schedule for 9/15 installation in design due 9/30

Dark Current test stand

## Mu Trigger FEE upgrade:

Station 2/3 scaffolding

Done

Station 1 scaffolding

Done

Rack components (N&S)

on order, receive by 8/8

# Shutdown '08 Schedule



## Mu Trigger FEE Upgrade (cont'd):

### Rack assembly

LV cable prep

Optical cable prep

N&S platforms Fabricate & install

Rebuild Bridge & Eyebrow

Prep work for platforms (water/elec)

LV cable installation

optical cable installation

FEE installation N&S sta's. 1,2 & 3

FEE water and dry air installation

Rack (N&S) installation

Install S rack cooling & electric

Install FEE's in MMS for RPC test

Rack room electronics, etc.

Final rack utilities

Disassemble station1 scaffold

Testing

RPC engineering & safety review

in progress finish by 8/15, install by 8/22

Done

In progress

fabrication in progress, install by  
8/15 (Pearson)

Complete by 9/30

in progress finish by 8/15

Complete by 8/29

Complete by 8/15

Aug-Sep.

Aug-Sep

8/22

Oct.

Nov.

Sep.- Oct.

Sep.-Oct

complete by Oct 15

Sep.-Nov. Complete by 11/15

Done

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# Shutdown '08 Schedule, cont'd



## RPC proptotype installation:

Prep work

complete by Oct 31

move (7) MuID pipes

move gap 5 south cable tray

Rack prep

Complete by Aug 29

RPC prototype gas system

July - Aug

Move shielding for installation

July - Sep

RPC prototype cable routing & support

July - Aug

Modify crystal palace & vapor barrier

July - Aug

RPC prototype install

(RPC2 - PHENIX)

Sep. - Oct.

(RPC3 - C. Pearson)

Sep. - Oct.

Install rack in tunnel south

Sep.

Replace tunnel shielding/Vapor Barrier

Nov. (C. Pearson)

Connect electronics/gas

Sep. - Nov.

MuTr Decapacitations (Sta. 1 N and MMN)

Station 1 Done Sta, 2/3 in progress/  
finish by 8/15

Fan Tray maintenance

in progress (on going fill-in)

PC1 west work (needs planning)

Oct. 15

CM Crane Install

Oct. 20

HBD Install

Oct. 27

DC East?/West Repairs

Nov. 15

8/7/08

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# Shutdown '08 Schedule, cont'd

Remove all inst'n equipment	
Sta 2/3 scaffolds	Remove by 11/15
all other testing equipment	Remove by 12/1
Prep for shutdown 2009	
Gap 5 N piping and cable tray re-loc.	Oct. - Dec.
Gap 2 N cable tray & crate re-mounts	Oct. - Dec.
Prep for run 9	
Begin run 9 Prep	12/1/09
Install all lampshades	Complete by 11/26
Roll in EC	12/22
Pink/White/Blue sheets	12/29
Close shield wall	12/31
Cryo Start up	1/1/09
Flammable Gas/start shifts	1/11/09
Start physics	1/18/09
End Run 9	6/30/09

# Shutdown '08 Electrician Work

1) Run Power to new MuTrgr FEE racks on MMN and MMS - *Final design of the reworked North Muon Power Distribution System is set. Nearly all material acquired without cost. Paul is m revising the One-Line electrical drawing. CAD approval required...maybe by **next** week. Effort should take ~ 1 week. **The new power cable feed to the MuTrigger rack is installed (2 cables, 1 spare) with no connection to the panel down below. The new North side power panel is installed on the IR North east corner wall. The new 75 KVA transformer for the entire North Arm service is reconditioned and tested satisfactory. The power for the South RPC tunnel Rack(s) to be taken from an existing (spare) breaker in the Muon Tracker power panel. This should take less than 1 day to install.***

***PHENIX electrician needs to install vertical section of cable tray from North Magnet Lampshade to underside of new rack platform. CAD concurrence for construction details (Pearson) is required.***

***MuTrigger LV Rack construction to require 4 man days to complete starting Monday 8/11.***

2) Install power feeds to RPC north & south tunnel racks from IR power panels. – *Plan is to run the cables from the IR to the North tunnel rack locations. The south RPC rack power can be taken from the existing (spare) breakers in the SMI power panel located on the IR south west wall. These cable runs may take a few days to complete due to new power tray runs required into the tunnel areas. **Not done due to lack of manpower – working on other higher priority items.***

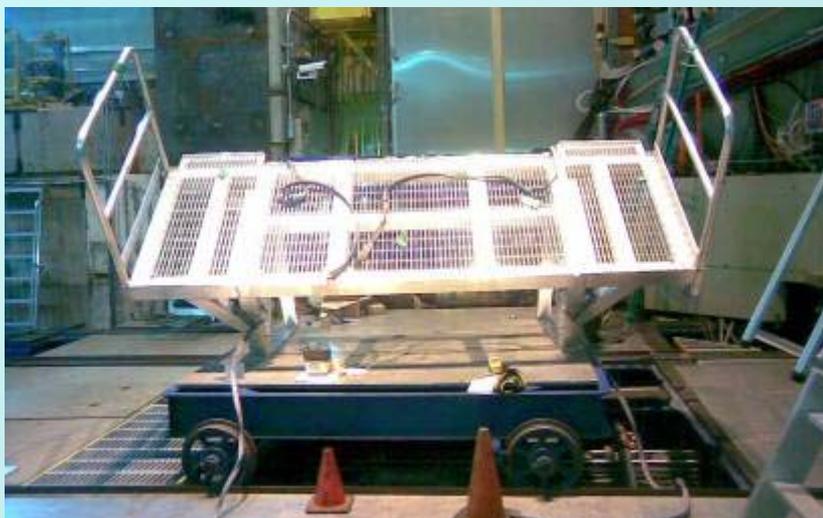
# Shutdown '08 Electrician Work, Cont'd.

- 3) Assist in signal and LV cable installation for MuTr/RPC upgrades as necessary. **Work in progress – working with students – have pulled in number of optical and LV cable bundles.**
- 4) Install power and signal cable tray (ceiling suspended) for new DCM rack row – north of existing DCM racks. - ***on Hold until new floor plan is determined***
- 5) Install new UPS in Gas mixing house. **Not done due to lack of manpower – working on other higher priority items.**
- 6) Upgrade power capacity of Central Magnet power distribution for future bridge rack loads.
  - a) Remove existing 15KVA transformer and install 45KVA unit.
  - b) Install new (larger size) power cable from rack room to Central Magnet distribution breaker panels.

- ***This job is on hold. No new racks in CM this year.***
- 7) Install 120 volt AC power drops into new control room annunciator alarm rack (rack room). **Not done due to lack of manpower – working on other higher priority items.**

# New FEE Platforms & Modified Bridge Parts

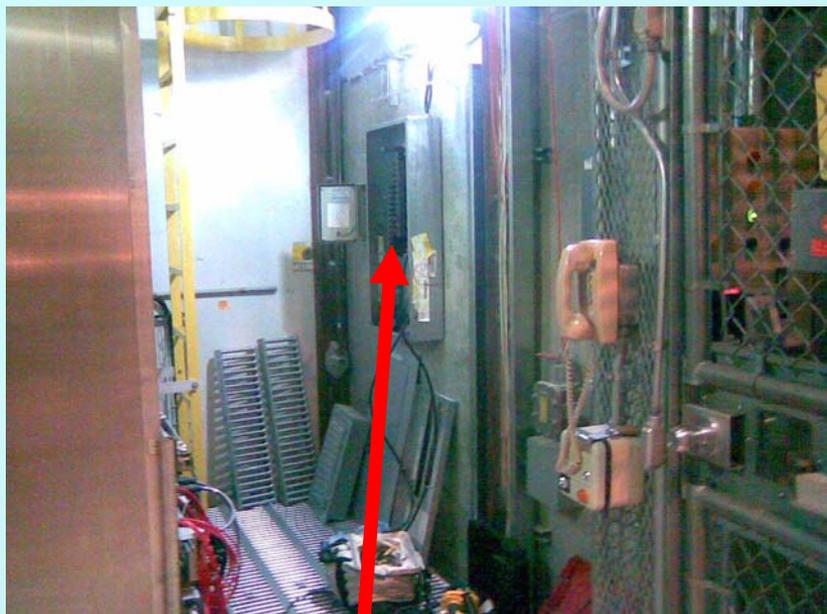
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8/7/08

# MuTrigger FEE Rack Utilities

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North FEE & Tunnel Electric Supply



Tees and Valves

# MuTrigger FEE Installation Prep

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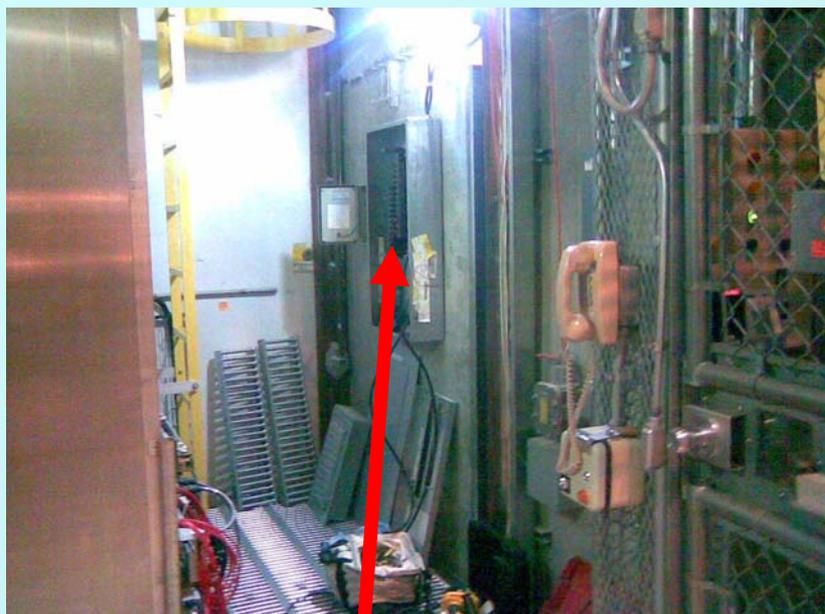
North & South Rack Prep



First Chasis shipment has arrived

# MuTrigger FEE Installation Prep

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North FEE & Tunnel Electric Supply



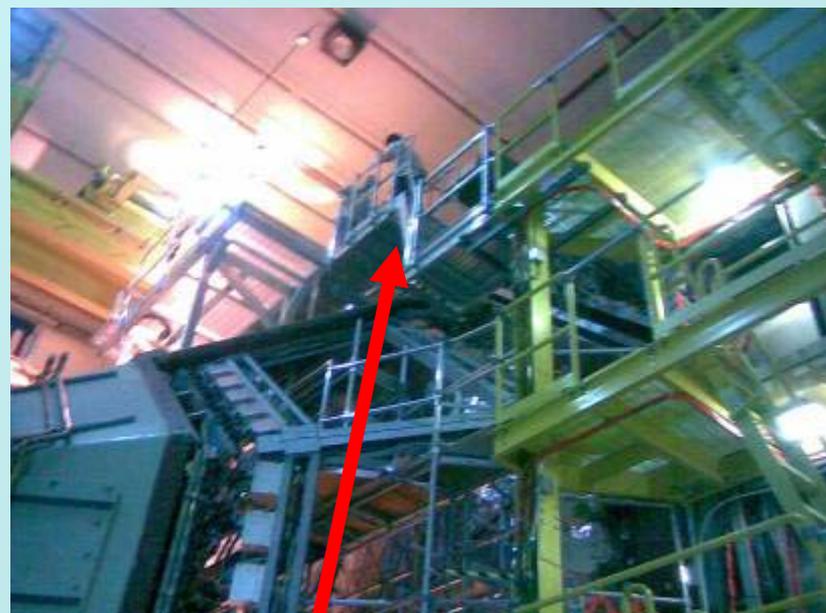
Station 1 FEE Support structure

# MuTrigger FEE Installation Prep

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North FEE Rack Platform is in



Temporary Access to Rack Platform is in

# MuTr FEE upgrade status

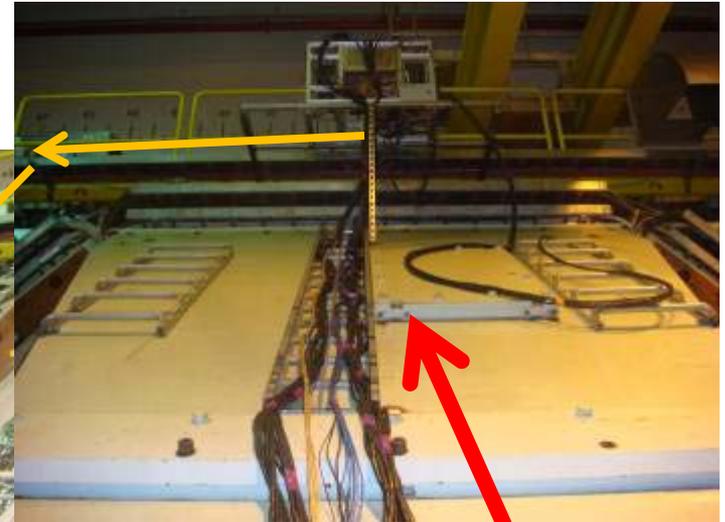
August 7, 2008  
PHENIX Planning meeting

Tsutomu Mibe (KEK)  
for the MuTr FEE upgrade team

# Cable running

Started running cables from Yesterday

- Cabling in the magnet
  - Completed :  
octant 8, 7, 6, 1
- Pulling up LV cable to the platform
  - Completed :  
octant 7
  - Working on  
octant 8



New rack platform was installed here.



LV  
Optical

# Test bench



- Progress
  - BCLK distribution (Steve, Sal, Frank)
- QA
  - Chassis backplane test from next week
  - ADTX board from Sep.
- MRG test
  - MRG-LL1 test (with Todd Kempel)
  - MRG-DCM test
  - Need G-Link signal from MuTr GTM in August.
  - PHENIX-VME communication (Ed Desmond)

# OASYS maintenance

- Replacement of the server for OASYS (Optical Alignment SYStem for muon tracker). **Done**
- Adjustment of cameras. **Almost done**
  - Some needs to adjust light source position/angle.

# Shipping from Japan



- ADTX chassis
  - 60 pcs (~Aug 6) **Arrived**
  - 70 pcs (~Aug 8) **coming**
- FEE-ADTX cables
  - 200 (30cm) **depart KEK in Aug 11**
  - 109 (30cm) (~Sep 3)
  - 524 more pcs to come
- ADTX boards
  - 20 boards (~beginning of Sep)
  - 200 more boards to come



# (Intended) installation schedule



- Cables running
  - Station 2,3 (this week)
  - Station 1 (next week)
- ADTX chassis
  - Backplane test (in progress)
  - Water leak test (John)
  - will be mounted from mid. August (Jimmy).
  - Connect cables in late August.
- ADTX board
  - will be installed from mid. Sep.

# Mu Tracker North Decapacitations

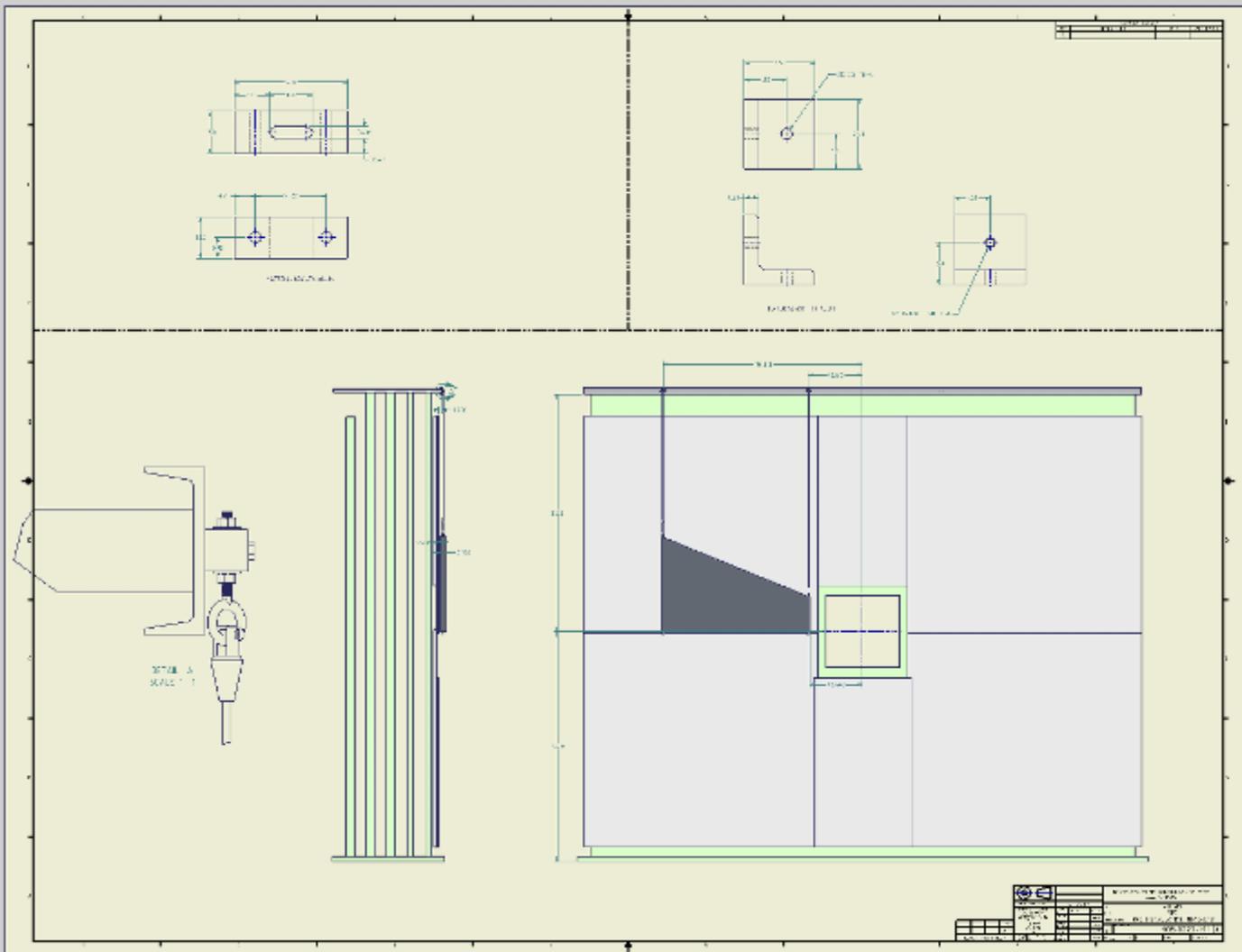
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Mike's Happy

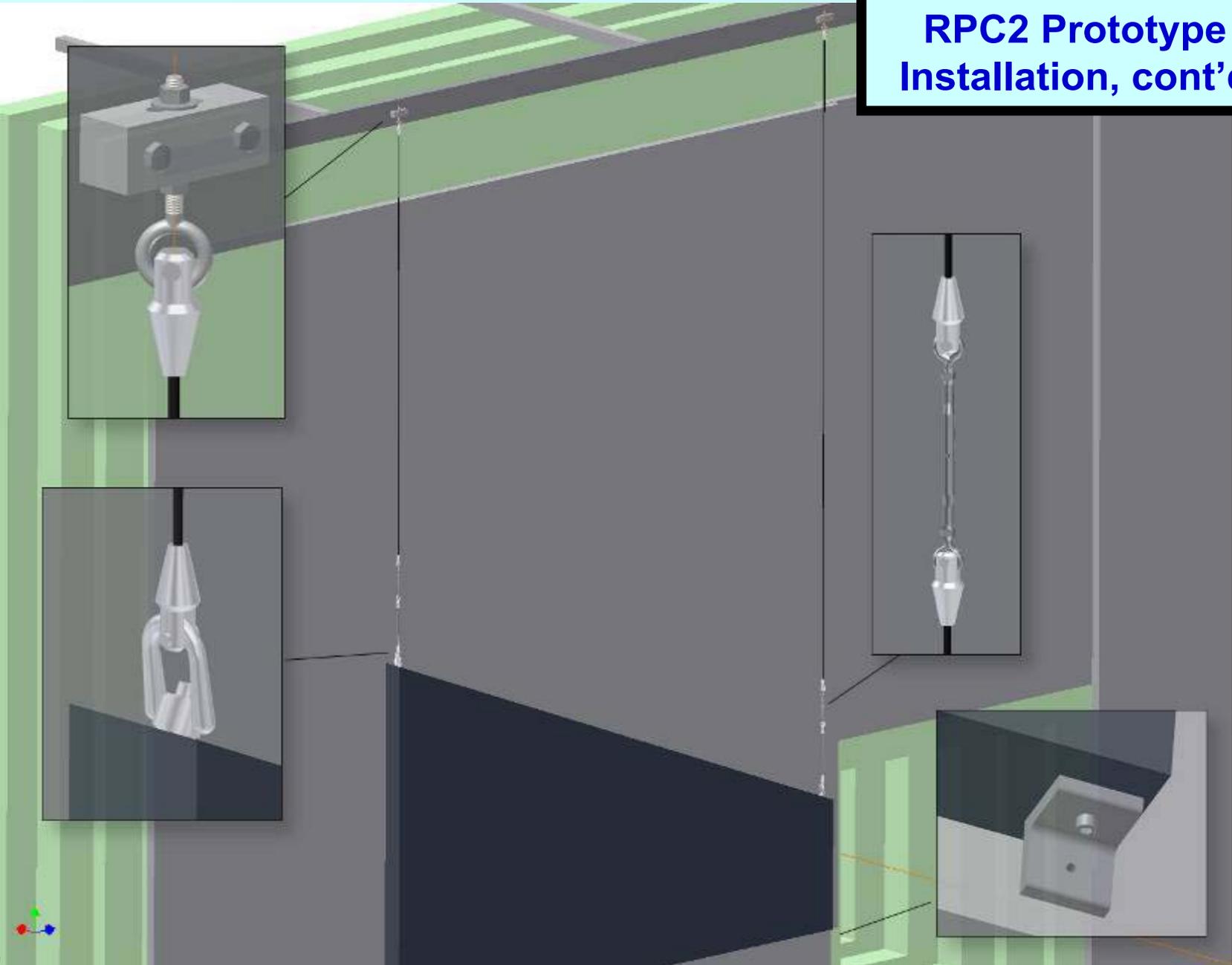


DeCap Access Platform



RPC2 Prototype  
Installation, cont'd

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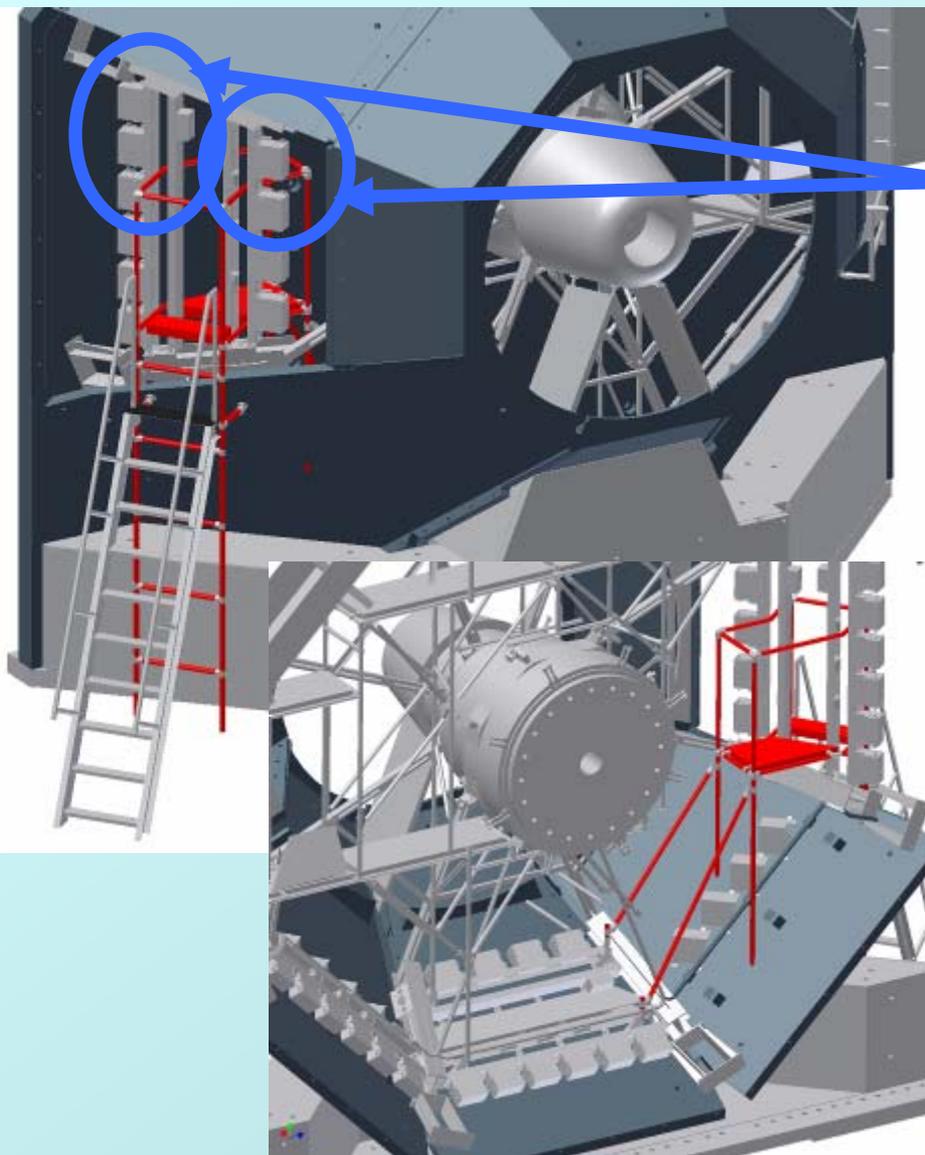


# RPC2 Prototype Installation, cont'd

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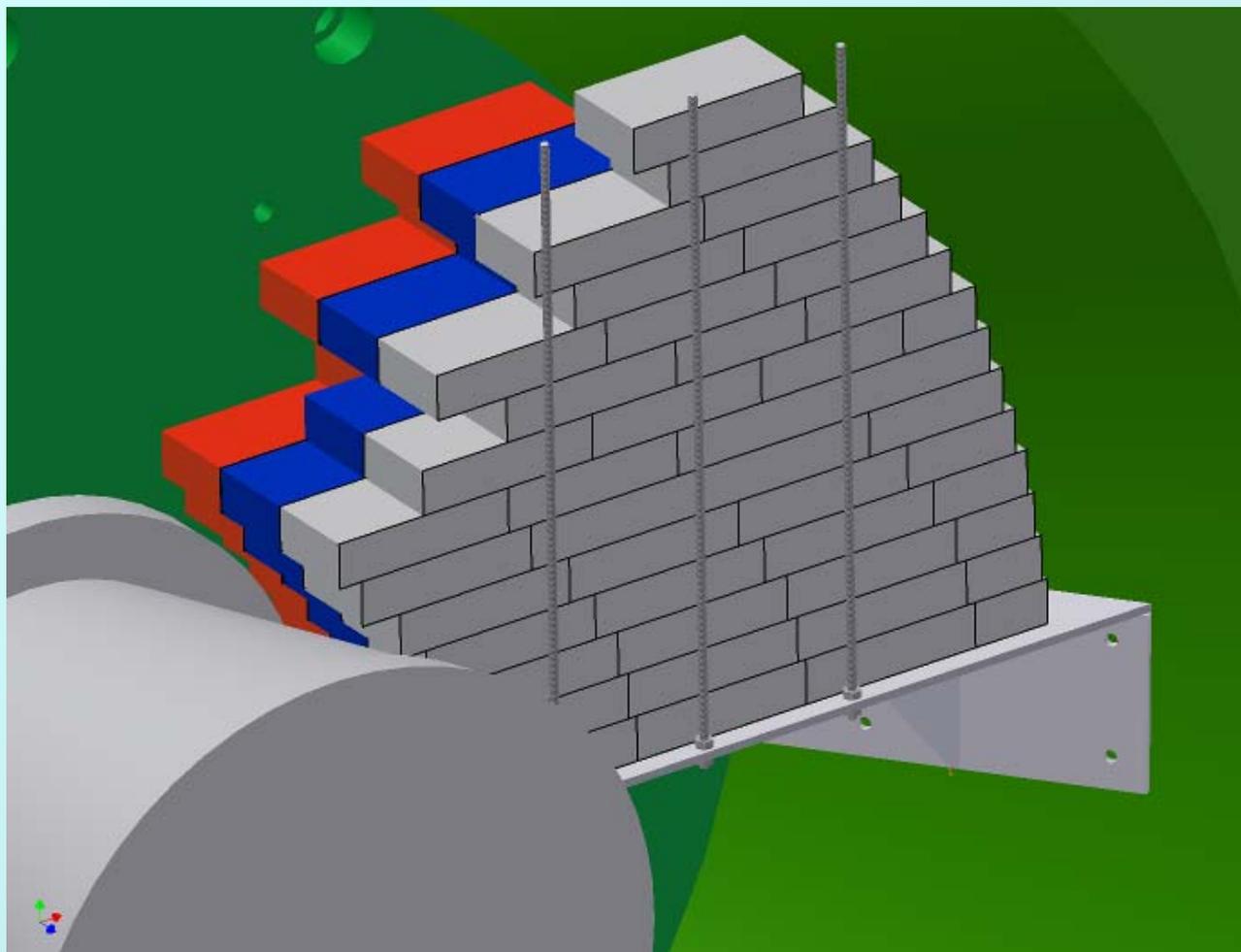
## MuTrigger FEE upgrades in MMS in support of RPC prototypes



To match absorber and prototype RPC's, we need to install new FEE upgrades in these 5 MuTR FEE's

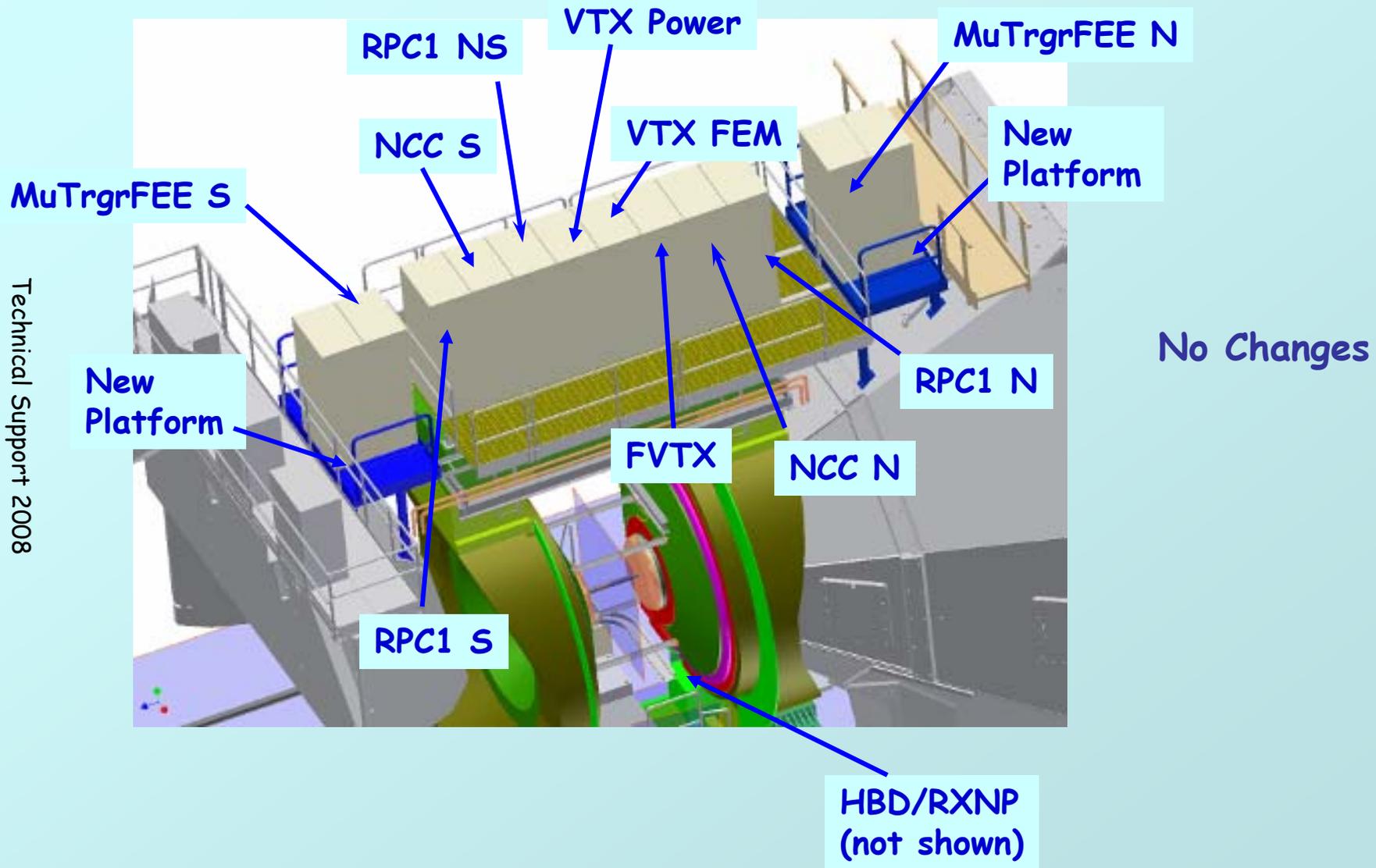
We will develop a plan to access these for installation and testing from a custom work platform (to be designed).

# RPC Absorber Concept



Drawings at  
CS for  
estimating  
Expect quote  
by end of  
week

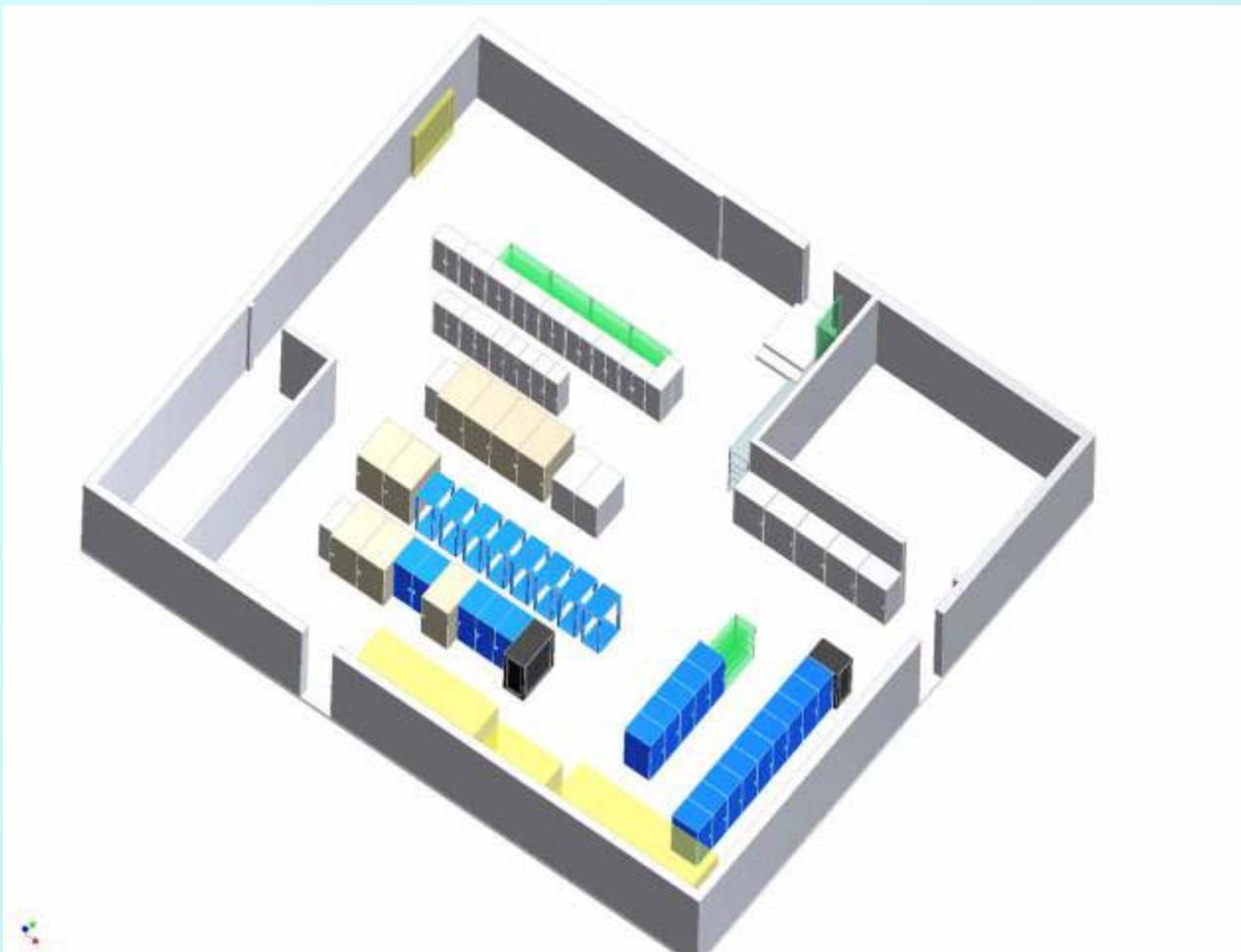
# Detector upgrade Rack allotments



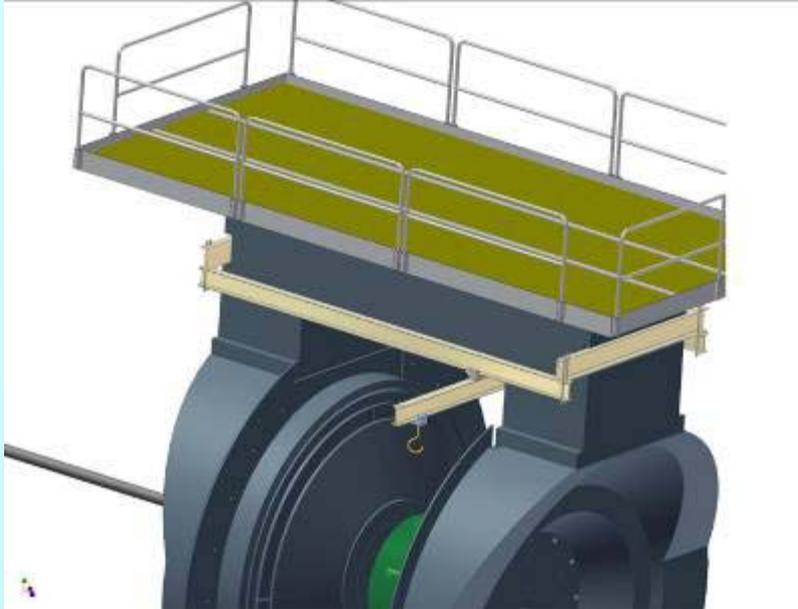
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# Rack Room Reorganization

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Inventor model in progress



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CM Crane procurement postponed  
Until FY09

Response from Vendor  
(The Bartholomew Co.  
local distributor for  
GORBEL) received.  
Sent to CA safety  
for review. Most  
issues fully  
addressed.

Plan to address  
remaining issues by  
8/15, send to vendor  
for requote, place  
order by 9/30



## Safety, Security, etc.

Now that all the scaffolding and the North platform are approved and in use, make sure that everyone reads the work permit and complies with all of the rules  
2 new generic enhanced work plans at CAD:

LOTO (new rules presented in CAD training sessions last month)

General Radiological Work Permit for work in CAD posted Radiation Areas (e.g. RHIC tunnel)

New DOE rule for persons with cardiac pacemakers: may not enter areas with static magnetic field  $> 5$  gauss

July ESH summary is out 1 DOE recordable, 8 first aids, 0 DARTS

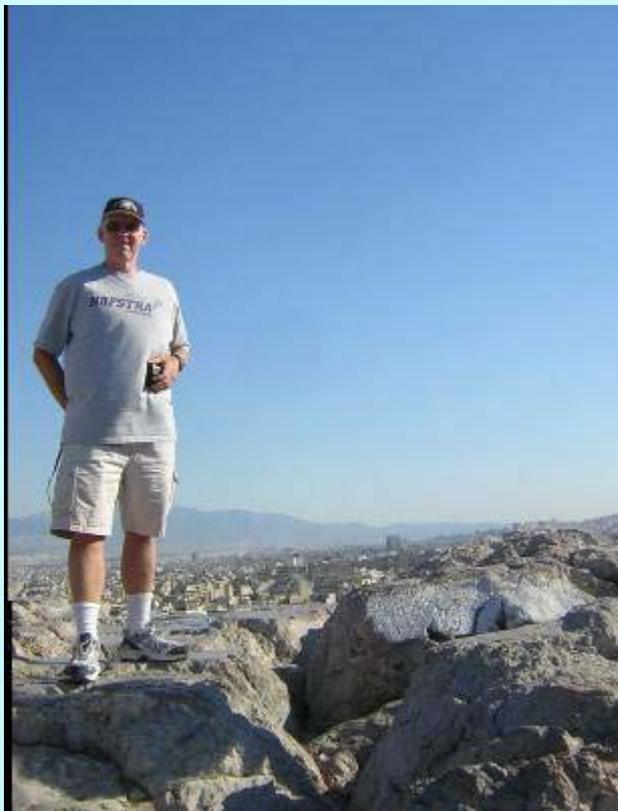
# Safety, Security, etc., Cont'd

## BNL July Occupational Injuries:

- Employee using box cutter to trim tie wrap cut hand - DOE Recordable
- Employee pushing chair back from desk, chair snagged on carpet, fell injuring wrist - First Aid
- Employee cutting pipe under truck hit head on truck frame - First Aid
- Employee sanding stainless got foreign material in eye - First Aid
- Employee removing batteries from vehicle pulled back - First Aid
- Employee sensitive to a certain chemicals smelled one and got sick - First Aid
- Employee holding door frame, wind got door slammed on hand - First Aid
- Employee pulling recycling containers to dumpster - felt pain 2 weeks later - First Aid

# Where To Find PHENIX Engineering Info

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some places I'd rather be



Links for the weekly planning meeting slides, long term planning, pictures, videos and other technical info can be found on the web site:



[http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL\\_SSint-page.htm](http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm)